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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,325	04/05/2001	Ian Karl Jones	713-488	4159

22429 7590 02/12/2003

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EXAMINER

NGUYEN, KIMBERLY T

ART UNIT	PAPER NUMBER
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1774

8

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS8

Office Action Summary

Application No.

09/826,325

Applicant(s)

JONES, IAN KARL

Examiner

Kimberly T. Nguyen

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-10 and 12-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-10 and 12-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1774

DETAILED ACTION

Response to Amendment

This action is in response to the amendment submitted on December 12, 2002. It is acknowledged that claims 2-3 and 11 are withdrawn.

Claim Rejections - 35 USC § 112

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7, 9, 12, and 21-26 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant's amendment of claim 1 shows that the packaging sheet consists of "a single material layer having a repeating pattern." This limitation of the single material layer is considered new matter because the neither the specification nor the Figures show where the invention consists of only one layer. Applicant does show on page 3, lines 9-13 that the packaging sheet is formed from a flat sheet of thermoplastic material; however, Applicant also shows on page 3, lines 16-18 that this flat sheet is *further* laminated to "a thin sheet...of either or both of the front and rear surfaces." Thus, it appears that the packaging sheet consists of *at least two layers*, and not a single layer. The previous rejection of claims 1-7, 9, and 11-12 are maintained.

18

Art Unit: 1774

The term "substantially" in claims 13, 15, and 16 and the term "sufficient" in claims 19, 20, 22, 23, 25, 26, 29, 32, and 37 is a relative term which renders the claim indefinite. The terms "substantially" and "sufficient" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Due to Applicant's amendments, the previous rejections of claims 3, 4, and 6-7 under 35 USC 112, 2nd paragraph are withdrawn.

Claim Rejections - 35 USC § 102

Claims 1-7 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnholtz, U.S. Pat. No. 5,830,558 as previously stated in the Office Action submitted on September 12, 2002.

As to the newly added limitation in claim 1 that the "repeating pattern comprises shaped protuberances," Barnholtz shows repeating patterns which protrude from the paper comprising shaped protuberances (Figure 4 and column 1, lines 22-27).

As to the newly added limitation in claim 1 that "every straight line projected onto said sheet cuts through at least one of the shaped protuberances and at least one of the gaps," Barnholtz shows that any and every line projected onto the paper cuts through at least one of the shaped protuberances and at least one of the gaps (Figure 4).

As to the newly added limitation in claim 4 that the "sheet has substantially equal contact areas at outermost levels on opposite sides thereof," Barnholtz shows that the paper has substantially equal contact areas at outermost levels on opposite sides thereof in Figures 2A and 2B.

Art Unit: 1774

As to the newly added limitation in claim 5 that the “repeating pattern further comprises...connecting webs being located at a middle level between the uppermost and lowermost levels of said sheet,” Barnholtz shows that the repeating patterns comprises connecting webs being located at a middle level between the uppermost and lowermost levels of said sheet (Figures 2A, 2B).

As to the newly added limitation in claim 6 of the connecting webs being in a first direction and second direction perpendicular to the first direction, Barnholtz shows in Figure 10 that the connecting webs extend in lateral and perpendicular directions to each other.

Claims 1, 4-7, 9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Rudy, U.S. Pat. No. 4,287,250 as previously stated in the Office Action submitted on September 12, 2002.

As to the newly added limitation in claim 1 that the “repeating pattern comprises shaped protuberances,” Rudy shows repeating patterns of rounded shaped protuberances such that any straight lines projected onto the surface of the paper cut through the shaped protuberances and gaps in-between (Figure 1).

As to the newly added limitation in claim 4 that the “sheet has substantially equal contact areas at outermost levels on opposite sides thereof,” Rudy shows that the cushioning device has substantially equal contact areas at outermost levels on opposite sides thereof in Figures 2, 3, and 5.

As to the newly added limitation in claim 5 that the “repeating pattern further comprises...connecting webs being located at a middle level between the uppermost and lowermost levels of said sheet,” Rudy shows that the repeating patterns comprises

Art Unit: 1774

connecting webs being located at a middle level between the uppermost and lowermost levels of said sheet (Figures 2, 3, and 5).

As to the newly added limitation in claim 6 of the connecting webs being in a first direction and second direction perpendicular to the first direction, Rudy shows in Figure 6 that the connecting webs extend in lateral and perpendicular directions to each other.

As to the newly added limitation in claim 9 that the distance between uppermost and lowermost levels of said sheet is less than or equal to about 5 times a thickness of the material layer, Rudy shows that the distance between the front and rear surfaces (uppermost and lowermost levels) is less than or equal to about 5 times the thickness of the sheet (Figures 2-3 and 5).

The amendments in claim 12 appear to be merely cosmetic. Rudy still shows claim 12.

Claims 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Rudy, U.S. Pat. No. 4,287,250.

Rudy is relied upon as above for claim 1. Rudy also shows that the cushioning device comprises hardened thermoplastic (claims 4-5).

Claim Rejections - 35 USC § 103

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnholtz, U.S. Pat. No. 5,830,558 as previously stated in the Office Action submitted on September 12, 2002.

As to the newly added limitation in claim 1 that the “repeating pattern comprises shaped protuberances,” Barnholtz shows repeating patterns which protrude from the paper comprising shaped protuberances (Figure 4 and column 1, lines 22-27).

Art Unit: 1774

As to the newly added limitation in claim 1 that “every straight line projected onto said sheet cuts through at least one of the shaped protuberances and at least one of the gaps,” Barnholtz shows that any and every line projected onto the paper cuts through at least one of the shaped protuberances and at least one of the gaps (Figure 4).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnholtz, U.S. Pat. No. 5,830,558 in view of McGuire et al., U.S. Pat. No. 6,254,965 B1 as previously stated in the Office Action submitted on September 12, 2002.

As to the newly added limitation in claim 1 that “every straight line projected onto said sheet cuts through at least one of the shaped protuberances and at least one of the gaps,” Barnholtz shows that any and every line projected onto the paper cuts through at least one of the shaped protuberances and at least one of the gaps (Figure 4).

Claim 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGuire et al., U.S. Pat. No. 6,254,965 B1.

McGuire shows a nesting-resistant sheet material comprising tessellations and patterns of shaped protuberances wherein the gaps in-between the protuberances are filled with foam on the front and rear surfaces of the sheet (column 16, lines 45-64 and Figure 9). McGuire shows that the patterns of the protuberances are positioned so that there is a gap around each protuberance in such a way that a straight line projected onto the sheet material cuts through at least one of the protuberances and at least one of the gaps (Figures 2, 3, 4). McGuire shows that the foam substance 16 can be filled into the gaps such that the sheet material can define a planar surface (coelevational with the outermost points) (column 16, lines 45-64 and column 17, lines 53-57 and column 1, lines 25-37). McGuire shows that the sheet material can be used for tapes, labels, and

Art Unit: 1774

other articles and it is conventionally known that such articles can be printed with indicia (column 2, lines 10-32). The sheet material of McGuire comprises high density polyethylene (column 17, lines 26-43).

McGuire does not specifically show that the foam overfills the gaps as in instant claims 14-15 or the compression strengths as in instant claims 19-20. However, such an increased amount of foam or compression strength are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the amount of foam or compression strength, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. amount of foam and compression strength) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are optimizable as they control the resilience, width and spacing of the valleys between the protrusions so that the area available for contact of the active agent with a target surface may be tailored, and the level of cushioning and nesting (column 9, lines 45-65). As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the sheet material with the limitation of the increased amount of foam and compression strength since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnholtz, U.S. Pat. No. 5,830,558.

Barnholtz is relied upon as above for claims 1 and 8.

Barnholtz does not show the compression strengths as in instant claims 22-23 or the thickness in instant claim 24 or the elasticity as in instant claims 25-26. However, such compression strengths, thicknesses, and elasticity are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the compression strengths, thicknesses, and elasticity, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. compression strengths, thicknesses, and elasticity) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are optimizable as they control the mechanical strength, cushioning, and elasticity of the paper. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the paper with the limitations of the compression strengths, thicknesses, and elasticity since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Barnholtz shows that the connecting webs constitute a first set and a second set which extend in a first and second direction, respectively (Figure 10); however, Barnholtz does not specifically show the T-shaped protuberances and co-linearity as in instant claims 27-28. However, the shape or configuration of an invention is a matter of choice which a person of ordinary skill in the art would find obvious absent persuasive evidence that the particular configuration of the claimed invention is significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Art Unit: 1774

Claims 29-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudy, U.S. Pat. No. 4,287,250.

Rudy shows a high-strength thermoplastic packaging sheet comprising repeated patterns (tessellations) of rounded shaped protuberances and gaps which are positioned such that any straight lines projected onto the surface of the sheet cuts through the protuberances and gaps in-between (Figure 1). Rudy shows that the protuberances have a top surface and side walls extending downwardly from the top surface which defines a top contacting surface and Rudy shows a bottom contacting surface wherein the distance from the bottom to the top contacting surface is greater than the thickness of the thermoplastic layer (Figures 2, 3, 5, 9). Rudy shows that the cushioning device comprises two thermoplastic layers 11 and 12 (thermoplastic layer and additional material layer) (Figures 2, 3, and 5), that the layers and bottom contacting surface are planar (Figure 9), and that the layers can contain air trapped in-between (column 1, lines 14-24).

Rudy does not specifically show the “sufficient strength” in instant claim 29, the compression strength as in instant claim 35, material thickness as in instant claim 36, or the “sufficient elasticity” in instant claim 37; however, such a thickness and levels of strength and elasticity are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the thickness and levels of strength and elasticity, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. thickness, levels of strength and elasticity) fails to render claims patentable in the absence

Art Unit: 1774

of unexpected results. All of the aforementioned limitations are result effective as they control the mechanical strength and elasticity of the cushioning device. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cushioning device with the limitations of the thicknesses and level of strength and elasticity since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

Applicants' argument filed December 12, 2002 have been fully considered but they are not persuasive.

Applicant argues on page 8 that amended claim 1 now shows that the sheet consists of a single material layer. Examiner is not persuaded since it is not clear where in the specification that Applicant shows this single layer. As discussed above, this limitation of the single material layer is considered new matter because the neither the specification nor the Figures show where the invention consists of only one layer.

Applicant does show on page 3, lines 9-13 that the packaging sheet is formed from a flat sheet of thermoplastic material; however, Applicant also shows on page 3, lines 16-18 that this flat sheet is *further* laminated to "a thin sheet...of either or both of the front and rear surfaces." Thus, it appears that the packaging sheet consists of *at least two layers*, and not a single layer.

On page 9, Applicant argues that the T-shape limitation is critical according to the first full paragraph on page 9 of the specification. Examiner is not persuaded because Applicants are still not clear as to the importance of the T shape themselves, not the

Art Unit: 1774

connecting webs. It is not clear how the cross-bar and upright parts of the T-shaped protuberances form guiding channels for a cutting blade since the protuberances are inflated and/or protrude. Applicants have not shown unexpected results or any advantages of the T-shaped protuberances themselves. Further, the connecting webs of Banarholtz, as shown in Figure 10, appear to show effective guiding channels for a cutting blade.

On page 9, Applicant argues that it is unclear where the motivation to combine Barnholtz with McGuire might be found. Motivation is found in column 9, lines 46-65 and column 16, line 22 to column 17, line 57 which shows that filling the gaps with foam aids in controlling the resilience, width and spacing of the valleys between the protrusions, the level of cushioning and nesting, and web stretch and uniformity.

On page 9, Applicant argues that Rudy fails to show new claim 29 because Rudy does not show a thermoplastic layer which has a sufficient strength to maintain the repeating pattern without the trapped air. Examiner is not persuaded because Rudy does show claim 29. Rudy shows a thermoplastic layer and a maintained repeating pattern thereon (Figures 2-5). Applicant also shows trapped air between a thermoplastic layer and an additional material layer in claims 33 and 34, both of which depend on new claim 29. Applicants have not shown where in Rudy that the plastic membranes 11 and 12 do not have sufficient strength to maintain the inflated shape. The trapped air in Rudy is not an *external* force which maintains the inflated shape of the membranes.

On page 10, Applicant argues that McGuire and Hamilton teach only partial filling of the pockets with foam. Examiner is not persuaded because the amount of foam filling is optimizable according to need (i.e. maintaining uniformity of the spaced

Art Unit: 1774

protuberances). It is not clear why Applicant has mentioned Hamilton since Hamilton was not used in the rejections.

On page 10, Applicant argues that the art fails to disclose, teach or suggest printed indicia. Examiner is not persuaded because McGuire shows that the sheet material can be used as a label and it is conventionally known that labels which comprise claims 10 and 13 can be printed, absent any evidence to the contrary.

On page 10, Applicant argues that the art fails to disclose, teach or suggest claims 18-23 and 35 and the compression strength. Examiner is not persuaded because such a compression strength can be optimized. The pressure which Applicant has cited in column 6, line 3 of Rudy is not compression strength, but the enclosures' internal pressure. As shown above, McGuire, Barnholtz, and Rudy shows claims 18-23 and 35.

On page 10, Applicants argue that the thicknesses in claims 24 and 36 are not shown. Examiner is not persuaded because even though a thickness may not be specifically shown, the thicknesses of the layers are optimizable and are result-effective as to the strength of the cushioning devices.

On page 10, Applicants argue that the art fails to show the claimed elasticity in instant claims 25-26 and 37. Examiner is not persuaded because although the specific elasticity is not claimed, the art shows the same materials and thus, are capable of showing the elasticity as in the instant invention.

On page 10, Applicant argues that the T-shape protuberances have not been shown by the art. Examiner is not persuaded as discussed above.

Art Unit: 1774

Conclusion

Applicant's AMENDMENT necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly T. Nguyen whose telephone number is (703) 308-8176. The examiner can normally be reached on Monday to Friday, except on every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Art Unit: 1774

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Kimberly T. Nguyen
Examiner
February 10, 2003

CYNTHIA M. KELLY
SUPERVISOR/EXAMINER
TECHNOLOGY CENTER 1700

A handwritten signature in cursive script, appearing to read "Cynthia M. Kelly".